DOCUMENT RESUME

ED 319 354 HE 023 549

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TITLE Organizational Structure and Design in Higher Education: A Literature Review of Organizational Structures in Higher Education with a Focus on the Co-Existence of Academic and Non-Academic Structures.
PUB DATE Feb 90
NOTE 20p.
PUB TYPE Information Analyses (070)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Administrative Organization; Bureaucracy; Group Structure; Higher Education; Models; *Organizational Climate; Organizational Theories; *Power Structure
IDENTIFIERS Contingency Models; Matrix Management

ABSTRACT

Two structures of authority coexist in colleges and universities: one that manages the supporting functional services and one that deals with the production areas of scholarship, teaching, and learning. This literature review defines organizational structure, discusses traditional organization models such as bureaucratic models, and outlines the dichotomy between product and function organizational structures. Modern approaches of organizational structure that give attention to the dual authority structure are then reviewed, including matrix organization structure and contingency organization structure. The review confirms that colleges and universities have a "special problem" not experienced by industry that is related to the product versus function structural organization designs. Both the matrix and the contingency structures have the potential to deal effectively with the dual authority structure found in higher education, though both would require a re-education approach and a commitment to effective communications within the institution. Includes 34 references. (JDD)

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ED319354

LITERATURE REVIEW

ORGANIZATIONAL STRUCTURE AND DESIGN IN HIGHER EDUCATION

A LITERATURE REVIEW OF ORGANIZATIONAL STRUCTURES IN HIGHER EDUCATION WITH A FOCUS ON THE CO-EXISTENCE OF ACADEMIC AND NON-ACADEMIC STRUCTURES

FEBRUARY 1990

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HE 023 549

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SYNOPSIS

ORGANIZATION STRUCTURE IN HIGHER EDUCATION

Two structures of authority coexist in colleges and universities: one that manages the supporting functional services, and one that deals with the production areas of scholarship, teaching, and learning.

This duel authority structure consisting of academic and non-academic structures in higher education has been identified by various theorist with different headings or titles. Knight used the term "structural looseness" to describe a structure that allowed for teacher autonomy in the classroom.

The terms "professionals", "educational professionals" and "experts" have been used to identify individuals that have a wider area of discretionary power within the organizational structure, yet who are liable to come into conflict with the organizational hierarchy because of their wider horizons and affiliations.

Amitai Etzioni (1964, 81) suggest that the duel system of authority within higher education is necessary and appropriate because colleges and universities are "professional organizations" where faculty are considered to be the professionals who provide the professional service of education and administrators are in charge of secondary supportive non-academic activities.

Although higher education has traditionally been identified as a bureaucratic organizational structure, some modern approaches that give attention to the duel authority structure will be reviewed and a comparison will be made between the organization matrix, and contingency approaches.

The purpose of this review of the literature is to present findings related to the above concepts. It will illustrate organizational structure in higher education and theories that focus on the duel academic/non-academic structure. Possible solutions in modern management structures will be compared for their strengths and weaknesses in a college or university setting.

Introduction

There are over 450 doctoral-granting universities, nearly 1,500 baccalaureate institutions, and approximately 1300 two-year colleges in the United States. These institutions of higher learning range in size from 20 to over 50,000 and represent the one campus as well as the multi-campus system like the University of California and the State University of New York that far exceed 100,000 students. Further, the spectrum includes everything from local trade schools that grant no degrees, to centers of learning that bring together some of the world's most renowned scholars.

From 1945 to 1970, administrative adaptations were legion. The university presidents of this era tended to be builders rather than scholars. Often coming to academe with major experience in other large organizations, they devoted themselves especially to the tasks of raising money and constructing buildings. The academic vice presidency emerged as a means to orchestrate educational policy and faculty affairs. The growth in size and specialization of faculties further decentralize administration as the scholarly disciplines became more distinct and academic departments became more autonomous. (Campbell, Fleming, Newell, and Bennion 1987, 129)

The individual faculty member represents the basic technical unit in the university system. In order to accomplish his tasks,

he has traditionally been granted a great deal of autonomy. Because of his professional training and the discipline specialization, he is considered the one most appropriate to make decisions concerning the specific conduct of his teaching and research.

There is no single managerial system in higher education based upon a distinct and unified scaler hierarchy. Much of the decision making is in the hands of the individual professor and student. The success of the university system depends upon the degree to which the individual internalized objectives mesh with the organization as a whole. (Kast and Rosenzweig, 597)

Since educational institutions are concerned with the molding of people rather than the transforming of objects, the motivation of their populations presents special problems not encountered in economic organizations. Katz and kahn (1966, 132) contend that the role of the teacher could be heavily prescribed if one were concerned only with the technical aspects of learning, but learning and reeducation are not only determined by techniques of spacing material and of mechanical reinforcement but also by deeper motivational processes. Therefore, a wider area of discretionary power is necessary for the staff member in the maintenance type organization.

Maintenance systems, such as colleges and universities, present special problems with respect to the hierarchical separation of power, privilege, and reward. There is likely to be a line of separation between the authority to make

organizational decisions and the submission to such decisions.

Definitions for Organization Structure

Organization structure is defined by Scott as "the enduring system of consistent relationships among positions within an organization." (Scott, Mitchell, and Birnbarum 1981, 160)

Organization structure consist simply of those aspects of the pattern of behavior in the organization that are relatively stable and that change slowly according to Kast and Rosenzweig and structure may be considered as "the established pattern of relationships among the components or parts of the organization." (Kast and Rosenzweig 1970, 170)

Gary Dessler (1980, 109) indicates that there is no unanimous agreement as to how to define or measure organization structure and defined organization structure as consisting of the following dimensions: (1) Departmentation, (2) Line and staff, (3) Coordination, (4) Levels and span of control, (5) Authority hierarchy, and (6) Delegation.

Owens defined organizational structure as "the arrangement of interaction of characteristics of the institution that establish patterns of authority, communication, planning, decision making, work flow, control, organizational (reporting) relationships, and rules. (Owens 1981, 67).

Tosi defines an organization as "a group of people, working toward objectives, which develops and maintains stable and

predictable behavior patterns" and identified the structural characteristics as growing out of the tasks performed in the organization, and being seen in the form of different work systems and types of departments. (Tosi, Rizzo and Carroll 1986, 37)

Traditional Organization Models

In the past, colleges have conformed to a considerable extent to Max Weber's specifications of the characteristics of a bureaucracy. This pyramidal approach usually has a well-defined division of labor, a hierarchy of authority may be identified, a system of rules and regulations is often laid down, and employment is generally based on technical qualifications. Tosi (1986, 46) states that "a hierarchical organization will emerged because the market is predictable and because a hierarchical bureaucratic organization is efficient." Both of these ingredients seem to have contributed to a hierarchical organizational structure in higher education.

A bureaucratic organizational structure in education has been acceptable in the past because it provided teachers with an orderly, understandable, and predictable milieu in which to pursue their profession and thereby make it easier for them to feel able to influence the direction that the organization would or should take. (Hughes 1985, 3198)

Although the bureaucratic model of classical management

theory has been prevalent in higher education, its limitations have surfaced which provide only a first approximation to an understanding of school organization. It has been argued by Hughes that classical theory pays insufficient regard to the problems posed by the employment of professionals or experts in educational institutions. Another limitation of the bureaucratic model is the focus on an organizational structure that emphasizes either a product or a functional structure.

Product Organizations and Function Organizations

One of the oldest controversies in structural design concerns the choice between a product and a functional form of organization. Functional organization is the logical choice where performance is relatively stable and administration assumes a relatively routine basis. The functional model appears adequate for organizational needs where integration can be achieved through preconceived plans and conflict can be routinely handled through a hierarchical arrangement. (Walker and Lorsch 1968, 130)

This dichotomy has also been viewed as functional versus goal-oriented structures. The goal-oriented organizational structure directs attention to specific outcomes or client services rather than "processing" activities. The essential logic of the two structures is that functional units contain enough people doing the same kind of work to have a departmental

organization in which people identify principally with their own specialty and its processes. In contrast, the goal-oriented unit often contains a mixture of skills, and its emphasis is upon the outcomes of work effort for creativity and adaptiveness. Goal-oriented units require personnel who are talented in their specialty or profession, since they provider the complete resource base required. (Finley, 826)

Institutions of higher education in the past have typically had a hierarchical organizational structure and have tended to take either the "product" or "functional" form. In the functional organization, the activities assigned to the major departments are seminar to the organization's subsystems. Similar work is grouped together. Managers and workers are assigned to units that are responsible for similar tasks. In product organization, departments are created around different products and services. Product departmentalization has become increasingly important, especially for large, complex organizations.

A dual authority structure that incorporates both function and product has become more evident in colleges and universities. The product organization structure which is concerned primarily with academic policy matters, was rooted in the faculty, decentralize, and was generally collegial. From the work of the departmental committees and faculty senates, to the appointment of chairpersons and deans, the tradition of the scholar-leader survived in the organizational structures of higher education.

The functional structure encompasses centralized and largely nonacademic management functions including libraries, financial aid, spectator sports, student activities, personnel and business functions. The functional structure is more hierarchial and bureaucratic. Although the academic structure has lost much of its collegiality, leadership within it has continued to pass periodically from professor to professor. By contrast, career administrators became the backbone of the nonacademic structure. (Campbell, Fleming, Newell, and Bennion 1987, 95)

The struggle between the two structures from the perspective of college administrator has been one of respecting faculty prerogatives, but at the same time being able to organize tasks and dispatch work with greater efficiency. The faculty have also brought the additional ingredient of the "expert" or the "professional" into the management organizational picture.

Experts and Professionals in Organizations

It is through the independent exercise of the trained judgment, irrespective of formal position, that experts make their contribution to an organization. It is through precisely the same activity that experts come into conflict with the administrative hierarchy. The very concept of supervision goes against the grain for professional people. Drucker (1952, 87) observed "professional" people work as senior and junior, rather than boss and subordinate. Of course somebody has to be in

charge of the project or activity and be responsible for it. but the professional thinks of it as a group project with each member of the team having independent responsibility clearly vested in him. Thus the superior should be a co-ordinator or a teacher, rather than a supervisor.

The dilemma is that is by using their trained judgment rather than by suppressing their views when they are unpalatable to the organization that educational professionals can make a contribution to the further development of the educational system. In so doing, they are liable to come into conflict with the organizational hierarchy and at least to give the impression that they are only conditionally loyal to the system because of their wider horizons and affiliations.

The presence of professionals in an organization appears to cause a diminished need for formalized rules and procedures. Since professionals have internalized norms and standards, the imposition of organizational requirements is not only unnecessary, but is likely to lead to professional-organizational conflict. Hall noted that departments composed of professionals exhibit little structural differentiation from professional firms or organizations and the structural organization is rather flat. The model that is followed is referred to as the "collegial model." (Hall 1972, 121)

Matrix Organization Structures

Matrix is a hybrid form of organization structure which combines both function and product or goal-oriented functions. It has been successful in the aerospace industry. The matrix organization pools personnel and equipment within functional units, permitting subdivision in the specialties, advancement, and effective use of resources. (Finley, 827)

The matrix organization is a structure that works well for mixed organizations. Finley (827) identified several situations where a matrix works best. It is well suited to situations involving the use of temporary project groups which will terminate their existence once the projects are completed and it works well where time constraints are more important than maximum economy.

Tosi (1986, 61) supplied a model of a classic matrix organization that separated "functional managers" from "project managers." He also identified some potential problems with a matrix structure stating it "has the potential for harmful conflict since often diverse and contradictory objectives and values come together in it." People in a matrix organization work for two superiors at the same time and it is possible that the goals of those managers may be incongruent. Matrix organizations negate some of the old principles of management including managers actually having more responsibility than

authority.

A matrix structure was implemented at Middlesex Polytechnic college in England with very mixed ratings. The focus of the matrix structure at Middlesex was to separate the "course management activities" such as organization, co-ordination, operation and monitoring of courses and the "resource management perspective" including recruitment, development and deployment of appropriate staff and other resources. The focus was to make the course, rather than the department, the basic unit of the organization.

The conclusions published by Rob Cuthbert (1979, 17) are mixed and leaning very strongly against the matrix structure. He stated that "the matrix represents a revolutionary, rather than evolutionary, change for all but the most flexible departmental organizations." Cuthbert feels that the dice are loaded against the matrix in higher education, because the prime responsibility for making a matrix work must fall on the department heads - the very people who have most to loose under such a structure.

Contingency Organization Structure

Lorsch and Lawrence (1970) gave contingency theory its name and they presented their theory as an open-system approach. (Bidwell and Kasarda, 12)

Tosi 91986, 17) generalized that the Lorsch and Lawrence studies concluded that organizations in a stable environment are

more effective if they have more detailed procedures and more centralization of the decision-making process, while organizations in an unstable environment have decentralized, participation, and less emphasis on rules and standard procedures.

There is no one best way to organize, yet alternative approaches are not equally effective. For any situation, contingency analysis presupposes that a relatively modest number of variables will be relevant to the problem at hand. The relevant variables will be found as a part of the environments (external and internal), work systems, people, organization and/or institutional philosophy surrounding the design matter. (Burack, 843)

Modern contingency theory deals with differences between organizations, rather than similarities, and seeks to explain the fit between organization design and contingency factors such as size, technology, and the environment. The results is an "it depends" model. Depending on several contingencies, the organization design will be different, yet effective.

Mintzberg (1979, 20) classified higher education as a "professional bureaucracy" which fit into the five steps of his contingency model as follows:

Strategic Apex

(administration)

Techno-structure Support Staff

Middle line

(management)

Large Operating Core of Faculty

Mintzberg saw a small apex in higher education, a small techno-structure, a larger support staff, a thin middle line of management, and a large operating core of faculty.

Conclusions

The review of the literature confirms that colleges and universities have a "special problem" not experienced by industry that is related to the product versus function structural organization designs. The traditional bureaucratic organizational models have not dealt successfully with this dual authority structure.

The matrix approach as tried in the Middlesex Polytechnic College in England was considered to be a failure by Cuthbert. It seemed that the group (department chair's) that had the most to loose was the group that was needed to implement the new

structure. This approach was doomed to failure from the beginning and may not be representative of the experience of other institutions.

Although the matrix approach has the potential to deal successfully with the dichotomy of function and product, it is recommended in the literature for temporary project groups. The matrix structure also requires major changes in traditional management philosophy which affects both administration and faculty in an educational institution. It seems important to take "baby steps" in this area to be successful.

My own institution has had some success in using a matrix concept in the form of a project manager for temporary groups which included faculty, staff and management, however the issue of function and product with the ingredient of faculty professionalism and autonomy has not been an area of success.

The contingency organization structure takes a much different approach than traditional organizational structures. Contingency develops relationships, communications, and interactions, whether horizontal, vertical, or diagonal. Designs will sometimes involve multiple relationships with various supervisors assessing different aspects of individual performance. Centralization or decentralization depends on such things as individual abilities, available technology, and personal realizations. The overall orientation takes into account environmental, organizational, technological, and individual considerations including social, technical, and

economic features.

Both the matrix and the contingency structures have the potential to deal effectively with the dual authority structure found in higher education. Both would require a reeducation approach and a commitment to effective communications within the institution. The matrix approach has more limitations and may have to be implemented on a small scale before it would be accepted for the total organization.

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